REMARKS

Applicant has cancelled the only claim under consideration, claim 52, and added two new claims 53 and 54.

Rejection of Claim 52 Under 35 U.S.C. 112, Second Paragraph

Applicant wishes to thank the Examiner for pointing out the inadvertent inclusion of subject matter that is extraneous to formula (1). This claim 52 has been cancelled and replaced with new claims 53 and 54 which removes the extraneous matter and therefore obviates the indefiniteness and this rejection.

Rejection of Claim 52 Under 35 U.S.C. 102(b) for Anticipation by Bishop U.S. Patent 5,681,959

Applicant has replaced cancelled claim 52 with new claims 53 and 54, both of which are restricted to a narrow class of di-substituted derivatives of 6-azaindoles of formula (1).

More specifically, claim 53 claims 6-azaindole compounds wherein R_3 is H, and R_2 and R_4 are selected from fluoro, chloro, bromo, methoxy and $-C(O)NHCH_3$. Claim 54 is dependent on claim 53 and claims the compound wherein R_2 and R_4 are each methoxy.

Support for these di-substituted 6-azaindole compounds is found in the application as follows:

Page 117, Compound 1zz – 4-fluoro-7-chloro-6-azaindole
(R_2 = fluoro; R_4 = chloro)

The final active HIV inhibitor compound 5av is made by the methods described in the application as indicated on page 118, lines 1-27.

As is stated on page 119, line 11 to page 120, line 4, final compounds 5ay and 5az can similarly be made.

Therefore, it is evident that the comparable di-substituted intermediate compounds are taught herein:

4-fluoro-7-methoxy-6-azaindole
(R_2 = fluoro; R_4 = methoxy); and

4-fluoro-7-N-methyl-carboxamido-6-azaindole
(R_2 = fluoro; R_4 = $C(O)NHCH_3$).

Page 121, Compound 1am – 4-bromo-7-chloro-6-azaindole
(R_2 = bromo; R_4 = chloro).

Page 121, Compound 1an – 4-methoxy-7-chloro-6-azaindole
(R_2 = methoxy; R_4 = chloro).

Page 121, Compound 1ao – 4,7-dimethoxy-6-azaindole
(R_2 = R_4 = methoxy).

In contradistinction, the cited Bishop reference discloses a process for making 5, 6 or 7 azaindole compounds (III) which are mono-substituted with the group Q. The claims are restricted to a process to make 7-azaindole derivatives; mono-substituted on the pyridine ring with group Q.

There is no disclosure regarding di-substitution on the pyridine ring as in the compounds (1) of claim 53. There is especially no disclosure of the compound of claim 54.

Bishop further points out how the prior art had great difficulty in making 7-azaindoles in view of the process complexity (see column 1, lines 8-54).

It is therefore submitted that Bishop does not anticipate the di-substituted-6-azaindole compounds (1) claimed in claims 53 and 54, and this rejection should be withdrawn.

Rejection of Claim 52 Under 35 U.S.C. 102(b) for Anticipation by Mahadevan or Schneller or Minakata

For the same reason above discussed for Bishop, all three references disclose mono-substituted aza-indole derivatives which are different from the di-substituted-6-azaindoles of Applicant's claims 53 and 54, and the rejection should be withdrawn.

All three references of the prior art are contained in Applicant's IDS filed October 24, 2003 – Mahadevan (Ref. BP); Schneller (Ref. CD); and Minakata (Ref. CG).

In Mahadevan, the compounds disclosed are not 6-azaindole derivatives as in Applicant's claims. They are 4, 5 or 7-azaindoles having mono-substituting on the pyridine ring which is different from that claimed by Applicant. Again, Mahadevan points out the difficulty in making azaindole derivatives (see page 359, first paragraph).

Schneller similarly discloses only mono-substituted azaindoles which are different from those claimed by Applicant. Again, there is no disclosure of 6-azaindole di-substituted derivatives.

Minakata also discloses only 6-mono-substituted 7-azaindoles which is different from Applicant's claimed compounds. Again, there is mention of the difficulty for nucleophilic substitution of the pyridine ring (see page 661, first paragraph).

Neither Bishop, Mahadevan, Schneller or Minakata individually or in combination would teach one skilled in the art the specific di-substituted-6-azaindole compounds claimed by Applicant in claims 53 and 54. Also, these references individually or in combination would not teach one skilled in the art the method for making Applicants claimed compounds.

Therefore, it is respectfully submitted that this rejection has been obviated by the amendments herein, and should be withdrawn.

Objection as to Updated Cross-Reference Information

Applicant has updated the status of the present application on page 1 as requested by the Examiner. Therefore, this objection should be withdrawn.

In view of the above amendments and remarks, it is respectfully submitted that the claims and application are in condition for allowance, and early and favorable action is herein requested.

CONCLUSION

If the Examiner has any questions or believes further discussion will aid examination and advance prosecution of the application, a telephone call to the undersigned is invited. If there are any additional fees due in connection with the filing of this amendment, please charge the fees to the undersigned's Deposit Account No. 19-3880. If any extensions or fees are not accounted for, such extension is requested and the associated fee should be charged to our deposit account.

Respectfully submitted,

Bristol-Myers Squibb Company
Patent Department
P.O. Box 4000
Princeton, NJ 08543-4000
(203) 677-7787

Date: 7/2/04

Samuel J. DuBoff
Attorney for Applicants
Reg. No. 25,969